UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,798	01/12/2007	Yoshitsugu Morita	71,051-031	8735

27305 7590 07/29/2009

HOWARD & HOWARD ATTORNEYS PLLC
450 West Fourth Street
Royal Oak, MI 48067

EXAMINER	
LOEWE, ROBERT S	
ART UNIT	PAPER NUMBER
1796	
MAIL DATE	DELIVERY MODE
07/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,798	MORITA ET AL.	
	Examiner	Art Unit	
	ROBERT LOEWE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-10,12,13 and 15-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-10,12,13 and 16-18* is/are rejected.

7)☒ Claim(s) *6 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/7/09 has been entered.

Response to Arguments

Applicant's arguments filed 7/7/09 have been fully considered but they are not persuasive. Specifically, Applicants argue that the conclusions made by the Examiner regarding the 103(a) rejection of Morita et al. (WO 03/072656) in view of Kuwabara et al. (US 2003/0010962) are not reflective of what one of ordinary skill in the art would have reasonably expected to have been able to do based on the knowledge gained from the combined teachings of Morita et al. and Kuwabara et al. Specifically, Applicants argue that a person having ordinary skill in the art would not have modified Morita et al. based on the teachings of Kuwabara et al. in the manner necessary to arrive at the invention as claimed. Applicants maintain the same position as previously presented and further rebut the Examiners responses to those said positions. The Examiner will respond only to those additional rebuttal arguments presented by Applicants as well as the 1.132 Declaration included in Applicants response.

Applicants argue that because Morita et al. and Kuwabara et al. are concerned with substantially different applications a person having ordinary skill in the art would not have

modified Morita et al. based on the teachings of Kuwabara et al. in a manner so as to arrive at the claimed invention. Applicants argue that the different intended applications of Morita et al. and Kuwabara et al. would weigh heavily on a person ordinary skill in the art when determining whether to substitute and/or supplement the respective compositions with components from the other of the compositions. While a person having ordinary skill in the art is aware of this fact, in the instant case Morita et al. explicitly teaches that when water-repellency and reduction in stress is desired, phenolic resins having chemically bonded polyalkylsiloxane groups may be employed. Kuwabara et al. teaches polysiloxanes bearing phenolic substituents are useful as stress reducing agents. The phenolic-siloxane resin as taught by Morita et al. and those phenolic-siloxane resins as taught by Kuwabara et al. are taught to be added for the same purpose; therefore, a person having ordinary skill in the art would have found such a substitution obvious and would have had a reasonable expectation of success when making said substitution. Applicant's position that it would be unreasonable to replace the specific silicone/phenolic resins taught by Morita et al. with those taught by Kuwabara et al. is therefore not found to be persuasive.

Applicants argue (this argument is also presented in the 1.132 Declaration) that Morita et al. does not teach phenolic resins having a siloxane backbone, but are limited to phenolic resins having polysiloxane pendant groups. Again, there is nothing explicitly taught by Morita et al. which would suggest this to a person having ordinary skill in the art. The conclusions drawn by Mr. Ueki in the attached Declaration are not found to be persuasive. Specifically, it is argued that Morita et al. teaches that suitable curable resins include epoxy resins, phenol resins, imide resins, or silicone epoxy resins (paragraph 0029 of Morita et al.). Applicants argue that since

Morita does not mention phenolic silicone resins, while at the same time distinguishing epoxy resins from silicone epoxy resins supports their conclusion that Morita et al. does not teach or suggest phenolic resins having a polysiloxane main chain. The Examiner disagrees. When describing the phenolic resins in paragraph 0031, Morita et al. makes mention of those which may have chemically-bonded polyalkylsiloxane groups. Again, the Examiner is of the position that there is nothing taught by Morita et al. which would exclude those silicone/phenol resins having a polysiloxane main chain. Even if it could be shown that the phenolic resins taught by Morita et al. does exclude those phenolic resins which having polysiloxane as the main chain, it is the position of the Examiner that it would still be obvious to a person having ordinary skill in the art to employ the silicone-phenolic resins as taught by Kuwabara et al. in the compositions of Morita et al. based on the fact that such silicone-phenolic resins reduce stress, which is a desirable property of the compositions taught by Morita et al.

Applicants argue that the roles of the respective phenolic resins of Morita et al. and Kuwabara et al. are different such that one of ordinary skill in the art would not substitute those silicone-phenolic resins taught by Morita et al. with those taught by Kuwabara et al. Applicants argue that Morita et al. is concerned with flame retardancy, while Kuwabara et al. is not. However, Morita et al. teaches that phenolic resins having silicone groups attached thereto may be employed. Even if the teachings of Morita et al. somehow excluded those structures having polysiloxane in the main chain, Morita et al. still teaches resins having both phenolic and silicone moieties and teaches that the compositions of the invention display excellent flame retardant properties. A person having ordinary skill in the art would not expect the flame retardant properties to somehow be destroyed or significantly reduced when substituting the resins as

taught by Kuwabara et al. for those taught by Morita et al. Additionally, the overall compositions of Morita et al. are taught to have excellent flame retardancy. It should be noted that compositions of Morita et al. are based on silicone resins. Therefore, it is clear to a person having ordinary skill in the art that the presence of silicone resin at the very least does not impair flame retardancy. Indeed a multitude of flame retardant compositions employ silicone resins as is well-known in the art. Therefore, a person having ordinary skill in the art would not be dissuaded from including the silicone-phenolic resins as taught by Kuwabara et al. in the compositions as taught by Morita et al. for fear that it would significantly impact the flame-retardant properties as taught by Morita et al. Further, the Examiner does not believe that the analogy presented by the Applicants is entirely accurate. To substitute sugar for salt in a baking recipe because both sugar and salt are water soluble does not reflect the facts of the instant case. A more accurate analogy would be to substitute sugar for a sugar substitute, such as Splenda, since both the Morita et al. and Kuwabara et al. teach that silicone-phenolic resins may be added to improve crack resistance.

It should be noted that paragraph 9 of the 1.132 Declaration cannot be fully considered since it appears to be incomplete.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 7-10, 12, 13 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (WO 03/072656) in view of Kuwabara et al. (US 2003/0010962).

Claims 1, 2, 4, 8, 13 and 17: Morita et al. teaches a silicone resin composition comprising (A) a silicone resin having a softening temperature exceeding 25 °C which satisfies all of the structural limitations of instant claims 1, 4 and 8 (paragraphs 0007-0013), (B) a silicone resin which is a liquid at room temperature (paragraph 0007), and optionally, curing catalysts and fillers (paragraphs 0041 and 0044). Morita et al. further teaches that the structure and substituents present on the silicone resin which is a liquid at room temperature may be the same as component (A) (paragraphs 0025 and 0056). Morita et al. further teaches the addition of a curable resin, which may be, *inter alia*, phenolic resins (paragraph 0031). Among the possible structures for the phenolic resins include those which contain chemically bound polyalkylsiloxane (paragraph 0031).

Morita et al. does not explicitly teach that the phenolic polyalkylsiloxanes satisfy the formula of instant claim 1. However, Kuwabara et al. teaches polysiloxanes which satisfy the

limitations of instant claim 1 (paragraphs 0020-0040). Morita et al. and Kuwabara et al. are combinable because they are from the same field of endeavor, namely, epoxy resin adhesives. Morita et al. and Kuwabara et al. are further combinable because they are concerned with the same technical difficulty, namely, reducing the stress in cured products. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the phenolic polysiloxane additives as taught by Kuwabara et al. into the compositions as taught by Morita et al. because Morita et al. suggests adding phenolic polysiloxanes to reduce stress in cured products (paragraph 0031 of Morita et al.) and Kuwabara et al. teaches that phenolic polysiloxanes are added to epoxy resin compositions to reduce stress (paragraph 0020).

Claims 3 and 12: Since instant claim 1 does not require that the silicone resin be a liquid, component (A) of Morita et al. satisfies all of the limitations of component (A) of instant claim 1. Instant claim 2 requires that the silicone resin be a liquid. Therefore, component (A) of Morita et al. cannot be used to satisfy this limitation. However, the **liquid** silicone resin [component (B) of Morita et al.] would satisfy this limitation provided that the other structural limitations are satisfied. Indeed, Morita et al. suggests that the substituents and structure of the liquid silicone resin may be the same as the solid silicone resin [paragraphs 0021 and 0039]. Therefore for those instances where component (B) of Morita et al. utilizes the same structural features of component (A) of Morita et al., the limitations of instant claim 2 are also satisfied.

Claims 7 and 16: In the examples, Morita et al. teaches that the amount of curing catalyst satisfies the range of instant claims 7 and 16. Morita et al. further teaches that the amount of organic resin (which is taught to include component (B) of instant claim 1) and silicone resins may be present in the amounts of instant claims 7 and 16.

Claims 9 and 18: Morita et al. explicitly teaches that the curable resin composition has superior **flowability** prior to curing (paragraph 0047), it inherently follows that such curable resin compositions are fluid/liquid.

Claim 10: Morita et al. renders obvious cured products obtained by curing the silicone composition of instant claim 1 (paragraph 0047 and examples).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4 and 5 of copending Application No. 11/912,631. Although the conflicting claims are not identical, they are not patentably distinct from each other because when "d" is equal to zero in claim 1 of copending application '631, component (A) of

instant claim 1 is substantially similar as component (A) of claim 1 of the '631 application. Component (B) of instant claim 1 is the same as component (B) of claim 4 of the '631 application. Component (C) of instant claim 1 is the same as component (C) of claim 1 of the '631 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 6 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as indicated on the previous Office action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
8-Jul-09

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796